IT 4100: File Systems

Resizing Partitions

Due according to date on Canvas

Assignment

The following should be done on the clonable machine `it4100-resize`. You should begin by cloning the machine, changing the IP address to something within your network, and verifying connectivity. The credentials for the machine are 'it4100/partition'.

NOTE You will edit `/etc/network/interfaces` to change your networking. You can delete the network line and the broadcast line if you want. You MUST change `ens3` to `ens4` for things to work properly. To apply the changes, you can do a `sudo ifdown ens4` followed by a `sudo ifup ens4`.

Partition

You need to use `gparted` to resize partitions. To use this program, you must boot the vm with some desktop version like `bionic_desktop` in the 'd' drive. (And just TRY, don't install the OS). The GUI version will work better with more RAM, maybe 2048.

Using `gparted`, you will need to do some resizing and creation so that you end up with the following:

- Resize the extended partition to consume the remaining free space.
- Move sda6 all the way to the right and resize to 1500 MiB.
- Move sda5 all the way to the right and resize to 2000 MiB.
- Resize extended partition to 5000 MiB (if you have done things correctly to this point, it will calculate 2984 Free Space preceding this partition)
- Increase swap to 1000MiB and move all the way to the right. (you must apply changes and reboot to deactivate swap) (Probably will also have to select `swapoff` in order to resize it)
- Increase sda1 to 4500MiB (at this point there is 1787 free space following)
- Create a partition in the beginning unallocated space of the extended partition (750MiB)
- Create a primary partition with the remaining freespace (freespace not within extended)

Apply changes, reboot.

Create a new mount point `/newmounts` for the newly created partitions. Mount them as follows:

- The new primary partition should be mounted at `/newmounts/primary`.
- The new logical partition should be mounted at `/newmounts/logical`.

Mount Partitions

Put entries in `/etc/fstab` so that these new directories will automatically be mounted at boot time. Make sure it actually works. Just use the default options for each.

Submission File Format

The submission file is a UNIX text file, and must have this format, *exactly*!

The file must be named `fs_info.txt`.

```
ip:          ip_address_of_your_file_system_machine
```

For example, my file would look like this:

```
ip:          144.38.214.8
```

Submission and Passoff

- Use the Submisions link at the top of the page to submit your text file to the `Ext Resize` assignment.

- Check back at the submissions site for feedback on the completeness of your work. Fix anything that's wrong. Repeat.